

DWIGHT'S AMERICAN MAGAZINE,

AND

FAMILY NEWSPAPER.

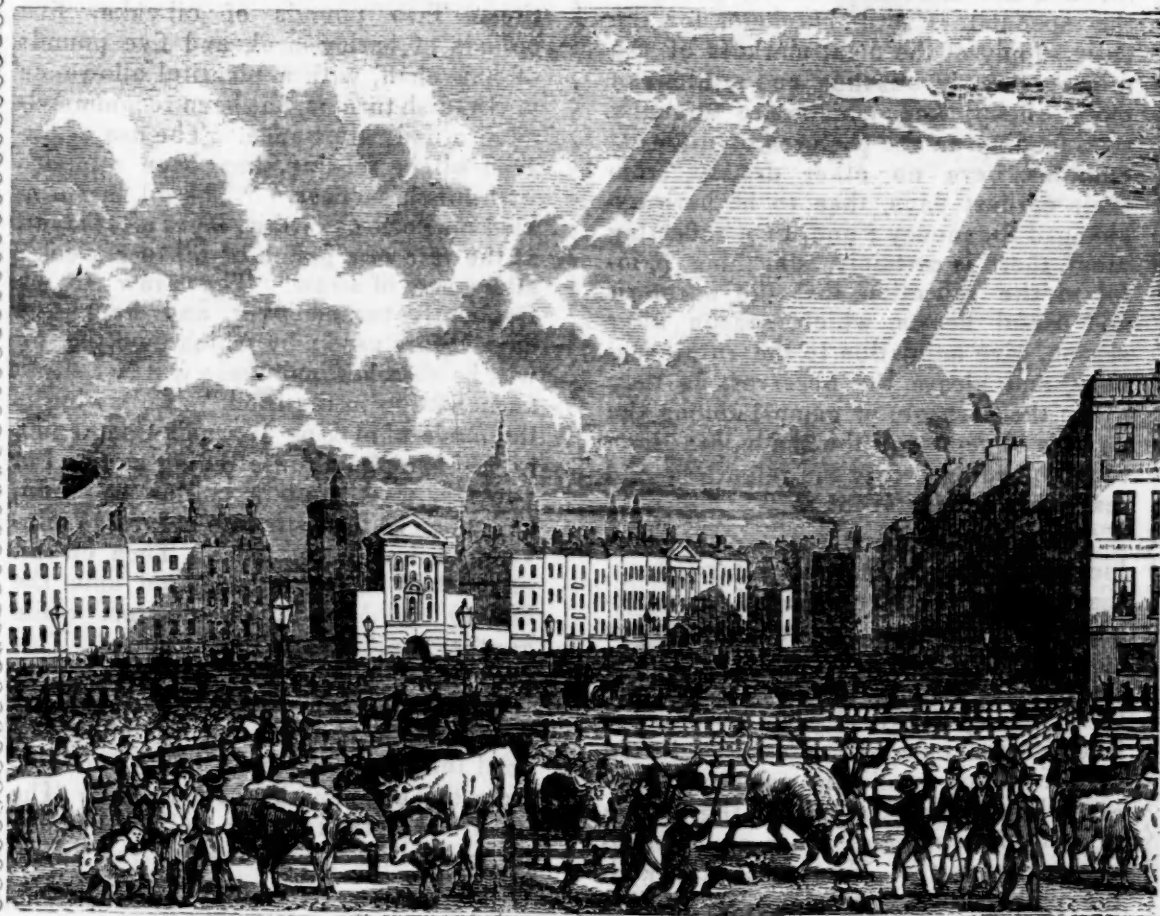
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SMITHFIELD CATTLE MARKET, LONDON.

This scene of crowds, noise and business, now the centre of all the cattle-trade in the metropolis of England, gained a melancholy notoriety in the days of the Reformation, as the chief place of martyrdom. The Book of Martyrology, a sad lesson for mankind, written in blood, has been consigned to us, and to future generations, by past time, and its study has been rendered necessary, so that it cannot be dispensed with, but must imperatively be used in every family, that its solemn warnings may be faithfully transmitted from father to son.

If it were our object at the present time, to sketch the history of Smithfield market as it was, we should allude,

among other things, to two leading Spanish Inquisitors who made this spot the theatre of their inhuman arts, having been imported, expressly for that purpose by the Bloody Mary, during the short but shocking restoration of the reign of Rome in her day. It is a fact, placed beyond all doubt by Llorente, that, as soon as the power was once again recovered by the Romish bishops, orders were dispatched to Madrid, for the aid of the most accomplished directors of Spanish spies and autos-de-fé, to introduce the great and noble art at once into England, in its most refined and perfect state. The call was answered, and with alacrity, and with what success the reader of history need

not be told. The discovery of bible readers, by various treacherous means had long been systematically practised, and was easily applied.

But Smithfield has been long devoted to very different purposes. Immense numbers of animals are now driven to it for sale, and there disposed of, chiefly to the speculators and butchers, for the daily supply of the meat-markets of the metropolis. Thousands and millions of oxen, sheep, &c., which are annually seen feeding on the pastures of different counties, have no other destiny, from their earliest days, than to be here exchanged for money; and, to a reflecting mind, there is certainly something painful in the reflection, that the harmless and useful beasts, which, season after season, give animation to the rural scenery, and please the observer, as they graze the herbage, or gambol among the flowers or repose in the shade, are soon to fall bleeding before the relentless and insatiable hunger of man.

The cattle trade is extensive, and so lucrative when successfully carried on, that some of the men engaged in it acquire, by long attention and experience an astonishing degree of knowledge and skill. At a late meeting of the Agricultural Society in this city, we were astonished at the information communicated by one of our intelligent practical farmers, who was called upon, in the course of a discussion, which arose on the management of cattle. He was familiar with the practices and opinions of English cattle-raisers and dealers, as well as with those in our own country; and it was easy to perceive, that many scientific men had come to their aid with great effect. The nature of domestic animals has been investigated, scientifically as well as practically; and great light has been thrown on the subject by the study of comparative anatomy, and the application of the laws of physiology.

Nothing is more common, than to find some particular method of treating cattle highly recommended, or some sort of food spoken of as sufficient, of itself, to produce wonderful effects. Sometimes a new theory is started, which appears plausible, and is described as having led, in experiments, to most satisfactory results. But many of the writers on such subjects have been unexperienced or not well acquainted with the sciences

which might have conducted them aright.

We give the following from the New England Farmer on 'fattening cattle.'

"In stall feeding, cattle should not be exposed to alternations of hunger and surfeit. Like human beings, they are fond of variety, and capricious in their appetites. Two pounds of oil-cake, five pounds of barley-meal, and five pounds of hay chaff, with a plentiful allowance of Swedish turnips, has been recommended as a daily allowance. The use of linseed oil in feeding, has been attended with much success. "The oil is sprinkled on good oat straw, layer after layer, at the rate of a gallon of oil to a week's allowance of straw. The straw to be frequently turned over, and kept two days before used; by which time the oil will be absorbed, and there will be a slight fermentation in the food." Following is the mode of making Warne's Compound, highly esteemed for fattening cattle. Put 166 lbs. water into a boiling cauldron, and when boiling, stir into it for five minutes, 21 lbs. linseed meal. Then 63 lbs. of crushed barley is sprinkled upon the boiling mucilage, by one person, while another rapidly stirs the mixture. This occupies another five minutes."

It is then left to cool; if there is much fire it should be put out. It should be used the next day, or by being excluded from the air may be kept longer. The quantity given to each bullock per day is eight pounds, with hay or straw in addition."

NIGHTLY SHELTER FOR THE HOUSELESS.

—The Committee of the above association made a report of the number of individuals who have since the opening, the 14th of December last, availed themselves of its advantages, as shelter from the inclemency of the weather. In the central asylum, situate in Playhouse yard, St. Luke's, 4,716 men, women, and children have been admitted. In the eastern asylum, in Glasshouse street, East Smithfield, 3,511; and in the western, Upper Ogle street, Marylebone, 3,967; making a total of 12,194. The number of rations distributed during the same period amounted to 131,138. The number admitted nightly, on the average, is 1,200, and during the most inclement weather hundreds cannot be admitted.—*London paper.*

Preservation of Health.

Better sleep in the open air, than in a small unventilated cabin or room of any description. In travelling in canal or steamboats, we invariably obtain a birth near the door, or else by a window which we can open, preferring a current of cold air to a close atmosphere. In 1840, on the eastern shore of Maryland, we heard of a gentleman in Annapolis, Maryland, who slept, winter and summer, storm or wind, with his window hoisted clear up; and on inquiring into the state of his health, found it better than that of any other man in the city. At the south, houses are very open, which is unquestionably more favorable to health than very warm houses. Nor are the modern ingenious contrivances of stoves, especially of coal stoves, any improvement over a wood fire in an open fireplace, but rather dangerous to those that use them. The fact is, that in a perfectly healthy state of the body, the animal heat is abundantly sufficient to counteract any degree of cold experienced, at least in our atmosphere; for the colder the air, the more oxygen we inhale, and this creates a proportion of natural heat, which is infinitely superior to all the stoves in christendom. Mankind really need very little fire. Brought up in the coldest portion of New York, on the high lands between the Susquehannah, Oswego, and Genesee rivers, (Cohocton, Steuben county, N. Y.) and in an open log-house, we know from our experience and the observation of others, that the best way to keep warm is to excite the circulation. In a cold day, men actually suffer less when exercising in the open air, than before a hot fire, with one side shivering and the other burning, or even in a room heated by a stove.

The fact is, that men dress too warm, sleep too warm, and keep their rooms too warm. Fire burns out the oxygen of the atmosphere, in which its vital properties consist; and dressing too warm, keeps the perspiration of the system confined in the clothes, which interrupts the healthy action of the skin, prevents the escape of waste matter, corrupts the blood, and engenders disease. The stock and collar are also injurious for the same reason. The neck should be open, so as to allow the confined air to escape, and admit fresh air to supply its place, and thereby give ventilation to the system.

Shut up from the air, how soon we die; and in proportion as we exclude the fresh air, or rather the oxygen of the air, from us, whether internally or externally, whether by burning it out by heating our rooms, or exclude it from our bodies by superabundant clothing, we hasten death.—SEL.

THE MULLET.—Mr. R. Q. Couch, in a valuable paper on the fishes of Cornwall, published in the *Zoologist*, mentions the following peculiarity of the mullet, which would seem to point to a higher degree of intellectuality in fishes than they are generally supposed to possess. The usual mode of taking the mullet is by enclosing them in a seine, and then drawing them on shore. As soon, however, as they find themselves enclosed, they seem confused, and wander from one part of the net to another, to discover a means of escape. Order, however, as if by mutual consent, is very soon established, and the largest of the shoal generally takes the lead in every subsequent undertaking. Thus guided, every portion of the net is carefully examined, and if a hole is found, through it they all make their escape. If unsuccessful in this, the foot of the net is attempted to be lifted, but the trial always fails, and many are meshed in the attempt. Baffled at all points, they retire to the centre of the space enclosed by the net, and after a short time the leader rises swiftly to the corks, and followed by all the others, throws itself over into the water, and thus they effect their escape. It is an exceedingly interesting sight to see them thus make a series of efforts for a given object, adopting them in succession, as if by reason. The fishermen are now in the habit of scattering straw along the inner margin of the buoys; the fish, deceived by this, throw themselves over the edge of the straw, but, alas! again fall within the enclosure; and having once failed, they never renew the attempt.—SEL.

Neutrality is no favourite with Providence, for we are so formed that it is scarcely possible for us to stand neuter in our hearts, although we may deem it prudent to appear so in our actions.—LACON.

Gaming is the child of avarice, but the parent of prodigality.—IBID.

Chili and its Inhabitants.

(From the *U. States Exploring Expedition*.)

"The predominant trait of the Chilians, when compared with other South Americans, is their love of country and attachment to their homes. This feeling is common to all classes. There is also a great feeling of independence and equality. Public opinion has weight in directing the affairs of state. The people are fond of agricultural pursuits, and the lower orders much better disposed towards foreigners than in other parts. Schools and colleges have been established, and a desire to extend the benefits of education throughout the population is evinced. This has been of late one of the constant aims of government. * * The Chilians are extremely fond of the dance called the samacueca. This may be called the national dance, and is in vogue among the common people. It is usually performed at the chingano, which is a kind of amphitheatre, surrounded by apartments where refreshments, including strong drinks, are sold, and is generally well filled by both sexes. The dance is performed on a kind of stage, under an open shed. The music is a mixture of Spanish and Indian, and is performed altogether by females, on an old-fashioned long and narrow harp, one end of which rests on the lap of the performer, and the other on the stage, ten feet off. A second girl is seen merrily beating time on the sounding-board of the instrument. On the right is another, strumming the common chords on a wire-string guitar or kitty, making, at every vibration of the right hand, a full sweep across all the strings, and varying the chords. In addition to this, they sang a national love-song, in Spanish, at the top of their voices, one singing a kind of alto; the whole producing a very strange combination of sounds. The dance is performed by a young man and woman; the former is gaudily decked in a light scarlet jacket, embroidered with gold lace, white pantaloons, red sash and pumps, with a tiny red cap; whilst that of his partner consists of a gaudy painted muslin dress, quite short and stiffly starched, not a little aided by an ample pair of hips; thrown over all is a rich colored French shawl; these, with well-fitted silk stockings, complete her attire. These last are in truth characteristic of the Chilian wo-

men of all classes, and they take no pains to conceal them. One not unfrequently sees the extravagance of silk stockings in the washerwomen at their tubs, and even with their hands in the suds. The dress in general fits neatly, and nature is not distorted by tight lacing, or the wearing of corsets. Nothing is worn on the head, and the hair, parted and equally divided from the forehead back to the neck, hangs down into two long plaits on each shoulder to the waist. The style of dancing is somewhat like a fandango. The couple begin by facing each other and flirting handkerchiefs over each other's heads, then approaching, slowly retreating again, then quickly shooting off to one side, passing under arms without touching, with great agility, rattling and beating time with castanets. Their movements are quite graceful, those of their feet pretty; the gestures may be readily understood, not only by the native audience, but by foreigners. I cannot say much for its moral tendency."

An excursion to the Cordilleras, by the scientific corps, was to be expected; it seems, however, that they were not provided with the requisite instruments for ascertaining elevations. They ascended a ridge belonging to the main body of the Cordilleras, and at the height of about ten thousand feet, they reached the summit.

"Here they had an extensive view of all the line of the snow peaks. That of Tupongati appeared the most conspicuous, although at a distance of eighty miles. The guide asserted that he could see smoke issuing from its volcano in a faint streak, but it was beyond the vision of our gentlemen. The peak itself from this view of it was quite sharp-pointed. The scene immediately around them was one of grandeur and desolation: mountain after mountain, separated by immense chasms, to the depth of thousands of feet, and the sides broken in the most fantastic forms imaginable. * * Nothing could be more striking than the complete silence that reigned everywhere; not a living thing appeared to their view. After spending some time on the top, they began their descent; and after two hours' hard travelling they reached the snow line, and passed the night very comfortably in the open air, with their blankets and pillions, or saddle-cloths. Fuel for a fire they unexpectedly found in abun-

dance: the *Alpinia umbellifera* answering admirably for that purpose, from the quantity of resinous matter it contains. Near their camp was the bank of snow before spoken of, from which the city has been supplied for many years. It covers several acres. The snow line here seemed to have remained constant, and would have afforded a fine opportunity to have verified the rule of Humboldt, but they had no instruments. The height they had ascended was supposed to have been about eleven thousand feet, and the Cordilleras opposite them about four thousand feet higher. The view of the mass of the Cordilleras, in its general outline, was not unlike those of Mont Blanc and other mountains in Switzerland."

In working the mines in the neighborhood of Chili, little skill seems to be exerted: thus, on one occasion, after the labour of several weeks, in extending a shaft, there was found not a particle of ore to reward the toil:

"They were just about giving up the search, when the mayoral, or master-workman, declaring he would have the last blow for luck, struck the rock with all his force. This detached a large fragment, and to their surprise and delight, laid open a vein, which proved the largest and richest that had been worked for many years. From this it would appear that the employment is attended with much uncertainty; and after exhausting one of these treasure deposits, there are no means or signs known to them by which they can ascertain the best direction to take to discover another.

The mines, by the light of the numerous candles, exhibited all the shades of green, blue, yellow, purple, bronze, &c., having a metallic and lustrous appearance. The confined air, with the heat of so many candles, made it quite oppressive; and persons who have not often visited mines, are subject to faintness and vertigo from this cause. Mr. Alderson and Mr. Dana were both affected by it. It was the first time the former had ever penetrated so far, Mr. Newman and himself being governed by the report of the mayoral, and the ore brought up in their operations. The miners were not a little astonished at our gentlemen loading themselves, besides the specimens of ores, with *pie-dra bruta*, which they considered of no value. The manner of labor in the mines is in as rude a state as

it was found in the agricultural branches of industry. A clumsy pick-axe, a short crowbar, a stone-cutter's chisel, and an enormous oblong iron hammer, of twenty-five pounds weight, were the only tools. The hammer is only used when the ore is too high to be reached with the pick or crowbar. The miners, from the constant exercise of their arms and chest, have them well developed, and appear brawny figures. When the ore is too tough to be removed by the ordinary methods, they blast it off in small fragments, not daring to use large blasts, lest the rock should cave in upon them. Only a few weeks previous to their visit, the mayoral, while at the farthest end of the gallery, was alarmed by the rattling down of some stones, and before he could retreat, the walls caved in for several yards outside of where he was, leaving but a small space.

It required eighteen hours of unceasing effort by nearly a hundred men to extricate him from his perilous situation. The ore is brought to the mouth of the mine on the backs of men, in sacks made of raw hide, and holding about one hundred pounds. Whenever a sufficient quantity to load a drove of mules is extracted, it is thrown down the mountain slide, and then carried to the furnace at Jacquel. Only seventeen miners were employed; previous to this the number employed was one hundred. Whenever a richer vein was struck, a larger number were employed, who could always be easily obtained by foreigners, the natives preferring to work for them, as they say whatever the profits or losses may be, they are sure of being regularly paid. The wages are small—from three to four dollars per month, in addition to their food. They are allowed to draw a third of their pay on the last Saturday of every month, and full settlement is made twice a year. They are supplied with clothing and other necessities, out of which the agent makes a per centage, and which is charged against their wages. There is one admirable regulation of the Chilian government, that of not permitting liquors to be brought within a league of any mine, under a severe penalty, which is strictly enforced. The cost of the maintenance of each workman is not great; they are allowed as rations for breakfast four handfuls of dried figs, and the same of walnuts: value about three cents. For din-

ner they have bread, and fresh beef or pork. Small stores, as sugar and tea, they find themselves. One of the greatest inconveniences, and which is attended with some expense, is the supply of the miners with water, which has to be brought up the mountains. The miners' huts are the last dwellings on the Chilian side of the Andes."

The manner in which St. John's day is kept in Peru is amusingly described:

"On St. John's day, (24th of June,) the patron saint of Lima, a great festival among the lower classes—the cholos, natives, zambos, and blacks—takes place. It is held in the valley of Amancaes, about three miles north of the city. Previous to the day, a number of tents and booths are erected in the valley, which is about half a mile long, and one third of a mile wide. These are decked out with flags and banners. There are tents for refreshments, strong drinks, dancing, gambling, &c., in every direction. On the road leading to this scene are erected shrines of the saint, where all who pass are expected to pay their contributions. On this day, every horse and vehicle in Lima is engaged, and at exorbitant rates. The whole road leading to the valley is crowded from an early hour in the morning. The higher classes generally frequent it early and return soon, while those of the middle and lower classes continue to keep it up until a late hour. Every one is decked with the flowers of the *Pancratium Amancaes*, which grows in great abundance in the place where the festival is held; and the decoration extends even to the horses and mules, as well as to the booths and vehicles. As the day advances, the crowd increases. No Fourth of July in our own country could equal the uproarious drunkenness that ensues. Dancing is the favorite amusement.

The dance in which they most delight is a national one, called the *samacueca*, and no words can give an idea of its vulgarity. I think it a happy circumstance that it is confined to this country. One Amancaes day would upturn a whole year of morals. As intoxication ensues it goes to extreme lengths. Italia, or rather, pisco, is pledged to every one, and many are seen with bottles and glass passing about, and pledging happiness and prosperity, in the hope of getting a small reward. The music to which they dance

consists of a small guitar, accompanied with the voice and beating of time; the tune is quite monotonous, somewhat resembling the Spanish *seguidilla*. The crowd is great, consisting of cholos, zambos, negroes, and whites, variously dressed and jumbled together; some singing, some begging, fighting, swearing, laughing; no order, all confusion. This is the centre of the fray. On the outskirts are seen groups of the better classes, sitting down to their pic-nics.

The acting president and governor of Lima, Lafuente and staff, honored the place with their presence, to please the people. He did not, however, appear to receive any honors, nor was his arrival greeted with marks of approbation or enthusiasm. Towards evening, when the inebriated mass is returning, the great sport of the day occurs. The cholo women who ride astride, are remarkably good horsewomen, and extremely expert in managing their horses. Their dress is peculiar; a large broad brimmed hat, with flowing ribands of gay colors, short spencer or jacket of silk, a gaudy calico or painted muslin skirt, silk stockings, blue, pink, or white satin shoes, and over the whole is sometimes worn a white poncho. Large wooden stirrups, ornamented with silver, numerous pillions, a saddle-cloth, and richly ornamented bridle, all decked with amancaes, form the caparison of the steeds. Nothing can exceed the confusion of the return of this great throng, moving over a dusty road, shouting and racing. The cholo women are always on the lead, and actively engaged in taking care of their drunken partners, who are frequently seen mounted behind them, with their faces flushed from the effects of pisco, forming an odd contrast to the beautiful yellow flowers that adorn their hats. The great feat of the women who ride single, is to unhorse their companions, which they frequently succeed in doing, to the great amusement and sport of the pedestrians, and the discomfort of their male associates. They are seen while at full gallop, stop suddenly, whirl round two or three times, and go off again at full speed, covering themselves and the bystanders with dust. Just before reaching the city, the road is lined with vehicles, not unlike our cabs, in which are seated ladies in full costume. The Alameda, as well as the other streets are crowded."—*Athenæum*.

Trick of a Monkey.

In the year 1818, an English ship on her passage from Jamaica to Whitehaven, had among her passengers a lady, Mrs. B., with an infant only a few weeks old. One pleasant afternoon the captain perceived a distant sail, and after he had gratified his curiosity, he politely offered his glass to the lady, that she might obtain a clearer view of the object. Mrs. B. had the baby in her arms; she wrapt her shawl about the little innocent, and placed it on a sofa upon which she had been sitting. Scarcely had she applied her eye to the glass when the helmsman exclaimed, "O, look! see what the mischievous monkey has done." The reader may judge of the female's feelings when, on turning round, she beheld the animal in the act of transporting her beloved child apparently to the very top of the mast!

The monkey was a very large one, and so strong and active, that while it grasped the infant firmly with the one arm, it climbed the shrouds nimbly by the other, totally unembarrassed by the weight of its burden. One look was sufficient for the terrified mother, and that look had well nigh been her last; and had it not been for the assistance of those around her, she would have fallen prostrate on the deck, where she was soon afterwards, apparently a corpse. The sailors could climb as well as the monkey, but the latter watched their motions narrowly; and as it ascended higher up the mast the moment they attempted to put a foot on the shrouds, the captain became afraid that it would drop the child, and endeavor to escape by leaping from one mast to another.

In the meantime the little innocent was heard to cry; and though many thought it was suffering pain, their fears on this point were speedily dissipated, when they observed the monkey imitating exactly the motions of a nurse, by dandling, soothing, and caressing its charge, and even endeavoring to hush it to sleep. From the deck the lady was conveyed to the cabin, and gradually restored to her senses. In the meantime, the captain ordered every man to conceal himself below, and quietly took his station on the cabin stair, where he could see all that passed without being seen. This plan happily succeeded; the monkey, on perceiving that the coast was clear, cautious-

ly descended from his lofty perch, and replaced the infant on the sofa, cold, fretful, and perhaps frightened, but in every respect as free from harm as when he took it up. The humane seaman had now a most grateful task to perform; the babe was restored to its mother's arms, amidst tears, and thanks, and blessings.—*Sailor's Magazine.*

AN INGENIOUS MACHINE.—A convict in the State Prison of New Jersey has invented a machine for taking the yeas and nays in Legislative Assemblies.

"Yesterday we saw, for the first time, a most wonderful machine, made for the purpose of saving time in taking the yeas and nays in our houses of legislation. The model of this machine has only been completed a day or two, and is not even yet quite ready to be exhibited.

"The machine, when put into use, is to stand at the clerk's table, and from it two wires are to extend to the desk of each member, terminating in two knobs, one of which should be marked yea and the other nay. When the question is to be taken, and it is announced by the chair, the clerk unlocks the machine by touching a spring, and every member pulls one of the knobs attached to his desk. If he wishes to vote yea, he pulls the yea knob—if he wishes to vote nay, he pulls the nay knob—the whole being done simultaneously and in a moment.

"The clerk then turns a small brass crank, part way round, and then figures appear before him, in the machine, one of which gives the number of yeas, the other the number of nays which have been voted, and the third the aggregate of all the votes taken. At the same time, and without any additional movement, the yeas and nays are all distinctly registered on the clerk's catalogue of members, which is printed pretty much in the usual form; the persons voting being marked by a small round hole pricked through the paper.

"All these operations are done with unerring certainty, and the whole should not require more than a single minute. The size of the house or the number of members will make no difference in the time required. As soon as all the members who wish to vote have pulled their wires, the work is complete. The clerk then turns his crank, and he has the number of yeas and nays in large figures."



THE LLAMA

This animal, which is peculiar to certain parts of our Southern Continent, and has been from time immemorial, a valuable beast of burthen in Peru and Chili, is often called and not inappropriately, the South American Camel. Though much smaller, and materially different from "the ship of the desert," (as the Arabs sometimes figuratively denominate the camel,) it resembles it in some respects most important to man. It is docile, strong, long-lived and able to subsist on cheap food; while it yields a valuable material for manufacture, in the long and thick hair which covers, and almost conceals its body.

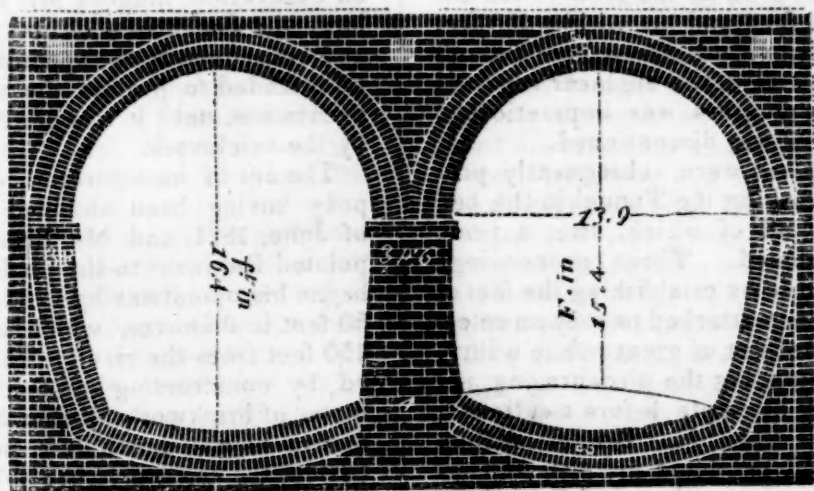
The form and aspect of this remarkable animal, are on the whole no less pleasing than striking to a stranger. It seems, at first view, something like a large sheep: but its coat is more rich in appearance than any variety of that animal, the hair being so long and flowing, and yet so fine, and often so white and clean, as to resemble silk, and make the animal look almost as if enveloped in a robe of ermine. The shortness of the legs, however give it rather a disproportionate aspect; but the length, uprightness and lofty carriage of the neck, have something like majesty, or at least dignity, far superior to the humble expression of the sheep, the goat and most species with which it might be compared. The countenance is intelligent and mild. The first views of the face conveys the idea that the Llama is lively and innocent. It has, however, a disagreeable habit of emitting air suddenly from the nostrils when disturbed, which is apt to

disgust and often to alarm the spectator.

The Llama, as we have before remarked, is allied to the Alpaca and the vicuna of South America.

THE ALPACA.—In 1817, the late D. Bennet, Esq., of Farringdon House, Berks, received a pair of alpacas, and fed them, as he did his sheep, with hay and turnips in winter. He found them hardy and healthy; and noticed that they required little care. From this stock he reared fifteen, of which the greatest number he had in his possession at one time was eight. Generally the young ones passed into other hands.

From Viscount Ingestre, says Mr. Walton, I was favored with the following, under the date of May 31st:—"In answer to the queries which you put to me, I beg to state, 1st. That the animals I imported were a pair of alpacas, and that I shipped them from Valparaiso in the latter end of the year 1825. 2dly. That they stood the voyage remarkably well. 3dly. The female had, three or four times, one young one at a time. And 4thly. They were for some three or four years at Earl Talbot's, at Ingestre, to whom I gave them, and who afterwards, I believe, made a present of the whole stock to the Zoological Society in Regent's Park. I will add that I had them shorn once or twice, and had the wool spun, which made a cloth of the softest texture possible. I have no doubt that they might be naturalized in this country, &c.—*American Agriculturist.*



SECTION OF THE THAMES TUNNEL.

As the work proceeded in this wonderful tunnel, the masons constructed, as we have said, two parallel galleries, behind the shield; an idea of which may be clearly formed, by a moment's attention to the print here given. The reader should bear in mind, that the complete 'shield,' when all its compartments were arranged and fastened together, (as hereafter will be described,) filled a space corresponding in form and size with the entire outline of this oblong. As fast as the advanced party of laborers, with their pickaxes and shovels, removed the wet earth before it, within the reach of their implements, and the second party carried it away in their wheelbarrows, the masons, following close on with their mortar, bricks and trowels, constructed fine, substantial walls above and around, laying every portion of their materials so as to form a thick, solid mass, supported by triple arched courses on the roofs, sides and floors, with all the proportions scientifically calculated to guard most effectually against the immense pressure above, at the sides and even below. From the soft nature of the earth under the bed of the Thames, and the great weight, not only of the superincumbent earth, but also of the water and the ships which crowd it, it was apprehended that, even if the downward and lateral pressure could be sustained, the floor of the tunnel might be forced up. The reader will see that even this more remote danger, was guarded against, by forming a strong concave pavement, of the same materials and description as the walls. This is wholly concealed from the view of a

passenger at the present time, as it is covered with a superstratum, forming the pathways for carriages and foot passengers, the surface of which is shown by a convex line above. The dimensions of the galleries, &c., are marked on the print.

We have not yet given the history of this remarkable work, and now avail ourselves of a succinct account published in London at the time of the final resumption of the undertaking in 1835, after it had been long suspended by the bursting in of the river.

"A very superficial knowledge of the immense merchantile concerns carried on in the neighborhood of the River Thames below London Bridge, will instantly show the great utility, and the consequent importance, of an easy conveyance by land from shore to shore at that part of the river; and it appears that the only effective resource which could be contemplated as of permanent utility, is that of a Tunnel under the bed of the river, of a sufficient capacity, however, to form a constant and uninterrupted public highway.

The project of a Tunnel under the river at Gravesend was put forward in 1799, but the scheme was soon abandoned; this was foiled by an attempt to form a Tunnel from Rotherhithe to Limehouse in 1804, under the authority of an act of Parliament, at which time a shaft of 11 feet in diameter was sunk to the depth of 42 feet: but, from difficulties then encountered it was for a time suspended, and afterwards continued at a reduced diameter of 8 feet, to the depth of 76 ft.,

at which depth a small driftway was carried therefrom under the river to the extent of 923 feet, and to within 150 feet of the opposite shore, when, new difficulties having arisen, the engineer reported that further progress was impracticable, and the work was discontinued.

Various plans were subsequently proposed for working the Tunnel in the bed of the river, all of which, after a time, were abandoned. These proceedings are adverted to as establishing the fact of the importance attached to such an enterprise, as an object of great public utility.

Notwithstanding the discouraging results of the attempts before mentioned, immediately when Mr. Brunel in 1823 proposed and exhibited his plan for constructing at once, and on a full scale, a double arcade, forming an easy road-way under the Thames, it was not only received, but liberally supported by gentlemen of rank and science, undismayed by the extraordinary risks which an enterprise of such magnitude must present.

The spot between Rotherhithe and Wapping, selected for the intended communication, is perhaps the only one situate between London Bridge and Greenwich, where such a project could be attempted without interfering essentially with some of the great public mercantile establishments on either side of the river; the situation is about two miles below London Bridge, in very populous and highly commercial neighborhoods, where a facility of land communication between the two shores is very desirable, and where a successful issue must be very advantageous not only to the immediate neighborhoods, but also to the adjacent counties.

While the necessary steps were taking to obtain an act of incorporation, and raise money to carry the plan into effect, the Committee of Subscribers employed a competent person, unconnected with the Engineer, to take borings across the river in that part, in three parallel lines; and on the 4th of April, 1824, he reported, that there was upon each line a stratum of strong blue clay, of sufficient density and tenacity to insure the safety of the intended Tunnel, and of considerable value when the excavation commenced; upon this encouraging report the Committee approved of the locality proposed for the Tunnel.

This very satisfactory account relative

to the soil found in the line of the intended excavation, induced Mr. Brunel to enlarge the dimensions of his original plan, and consequently the apparatus by which he intended to protect the whole of the excavation, until it was perfectly secured by the brickwork.

The act of incorporation of the Company having been obtained on the 24th of June, 1824, and Mr. Brunel duly appointed Engineer to the undertaking, he began his operations by making a shaft of 50 feet in diameter, which he opened at 150 feet from the river. This he effected by constructing first a substantial tower of brickwork of that diameter, 42 feet in height, and 3 feet in thickness, besides the coating; over this he set up the steam engine necessary for the drainage. He afterwards sunk the whole into the ground in the way that the shafts of wells are usually sunk. By this means he succeeded in passing through a bed of gravel and sand 26 feet deep, full of land water, constituting in fact a quicksand, in which the drift makers had been compelled to suspend their work, and ultimately to reduce the dimensions of their shaft from 11 to 8 feet, as already mentioned.

While this operation was in progress, Mr. Brunel received an intimation from eminent geologists, warning him of the existence of a bed of sand lying at a greater depth, and advising him to keep as near as possible to the bottom of the river. This information corresponded with the account given by the drift-makers respecting the existence of a quicksand, and its depths beneath the level of high water.

The 50 feet shaft having been completed to the depth of 65 feet, a smaller shaft, 25 feet in diameter, destined to be a well or reservoir for the pumps, was afterwards sunk. But on approaching the depth of 80 feet, the ground gave way suddenly under this latter structure, which sunk several feet at once, the sand and water blowing up at the same time. Thus was the previous intelligence confirmed of the existence and the nature of the bed of sand in question, by which information the Engineer of the Thames Tunnel has been guided in the line that he has completed for his structure.

The shaft and reservoir having been completed, the horizontal excavation for the body of the Tunnel was opened at the depth of 63 feet. [*To be Concluded.*]

Account of the Introduction of the Manufacture of Porcelain into France, by Bernard Palissy.

Palissy was born in some village, the name of which is unknown, in the diocese of Agen, about the year 1500; he followed the humble calling of a land-surveyor to which, as he advanced in years, he added that of painting on glass.

At that period the art of Porcelain-making was unknown. The discovery of Herculaneum and Pompeii has enabled us to determine the progress made by the ancients in the arts of pottery, and the only manufactory of crockery which could pretend to the name of Porcelain, was at Faenza, in Italy, whither it is said to have been transported from China, by certain Venetian merchants. From this manufactory was derived the name of 'faience' or 'fayence' still used in France.

It happened that on a visit to Agen, Palissy, the painter on glass, obtained a sight of a specimen of Faenza, or Oriental Porcelain, which inspired him with the hope of discovering some sort of white enamel, by which earthen ware might be encrusted; and from that moment he devoted fifteen years of his life to the pursuit of this single object. It appears a simple method to have proceeded at once to Faenza, and become a workman in the famous pottery. But means for so long a journey, were probably wanting to the poor village geometer, and he accordingly gave to the enterprise all that was in his power, every moment of his days and every faculty of his mind.

As a painter on glass, the art of mixing and fixing colors was well known to him; but the difficulty of transferring them to pottery ware and covering them by a transparent silicious varnish seems to have baffled his most persevering endeavors. Scarcely able to provide for the maintenance of his wife and family, he had the greatest difficulty in procuring colors and pottery to effect his experiments. Half his time was lost in grinding and pounding materials, and the vain attempts to construct the necessary ovens; at length he contrived to interest the owner of a pottery, who undertook to bake for his experimental pieces; but partly from ignorance, partly from ill will, the attempt was inexpertly made, and, ruined in fortune, health and spirits, at the close of twelve years of incessant

labor, Palissy was compelled, by the wants of his family, to abandon his pursuits, and resume his more thriving calling as an engineer. Having obtained from the district a commission for the draining of certain salt marshes, he executed his task with credit and profit. No sooner, however, had he obtained the means of continuing his attempts, than he returned with greater diligence than ever to his enameling, and despatched the new samples of his skill to be baked in the furnace of a glass house.

And now, for the first time, the composition he had invented proved fusible. Out of three hundred specimens of various experiments submitted, at the same time, to the action of the furnace, a single one presented on cooling, a hard, white, vitreous, brilliant surface; and the joy of poor Palissy, in the discovery, may be easily conceived.

"I was, however, at that time of my life so simple," says he, in his narrative of his experiments, "that the moment I had hit upon the real enamel, I set about making the pottery-ware to which it was to be applied; and after losing eight months in the task, I had next to construct a furnace similar to those of the glass-houses, in which it was to be baked. No one can conceive the trouble it cost me, for I had to do all by the single labor of my hands—to sift the mortar, and even to draw the water with which it was mixed. I had not so much as the help of a single man in fetching the bricks, my own back bore all!

"My first baking prospered pretty well; but when it came to the second, after the enamel had been spread over the pottery, I was unable to produce the heat necessary for the fusion. Six days and nights did I remain feeding and watching the furnace, half distracted and almost stupefied by the intense heat, and my own bitter disappointment. At last it occurred to me that the composition contained an insufficient proportion of the substance which had produced fusion in the former instance; and I accordingly set about grinding and pounding, though still obliged to keep up the fire of the oven, so that I had triple labor on my hands.

"The former pieces now being spoiled, I was forced to go out and purchase new pots to be covered by the fresh composition; and, on my return, I had the

misery of discovering that my stock of wood was exhausted! What was to be done? I rushed into my garden, and tore up the trellises; and these being insufficient, was obliged to sacrifice the dresser, stools, tables, and boarding of my house! All these were successively thrust into the furnace, in the vain hope of melting the enamel."

The reader will probably recall to mind the accounts given by Benvenuto Cellini, in his memoirs, of having contributed all his pewter dishes and household utensils to the metal prepared for his noble statue of Perseus, which proved slow and difficult of fusion. But the Italian protégé of princes makes a vaunt of his sacrifice, whereas the meek Palissy couches his statement in the terms of a confession.

"Scorched by the heat of the furnace," says he; "and reduced to a skeleton by the perspiration arising from this prodigious heat, I had now a new vexation in store for me. My family having indiscreetly circulated the report of my taking up and burning the floor of my house, I was considered insane by my neighbors and my precarious credit totally destroyed. If I had then died, I should have left behind me the name of a madman who had ruined his family by a frantic speculation. But though sick and dispirited, I cheered myself with the certainty that the discovery of which I had been so long in pursuit was effected; and that henceforward I had only to persevere in my labors. The difficulty of maintaining my family for five or six months longer, till a satisfactory result could be obtained, was the first consideration; but in order to hasten the period, I hired a potter to assist me in my work, furnishing him with models and materials.

"A cruel drawback it was, that I was unable to maintain this man in my dismantled house, for I was forced to run up a bill for his board at a neighboring tavern. Nay, when at the end of six months, he made me the various articles of crockery according to my designs, so that nothing remained to be done, but to cover them with my enamel, and submit them to the furnace; being forced to dismiss my workman, I had no means of paying him his wages, except by giving him my clothes, which I accordingly did; and my person was now as thoroughly dismantled as my house!"

All the rest of his labor poor Palissy had to encounter alone, though his hands were so cut and bruised with his work, that he was obliged he says, to eat his pottage as well as he could with his hands wrapped in linen rags. The hand-mill in which he ground his materials, required the power of two strong men to work it, yet he was wholly without assistance. Nor were his disappointments yet at an end. After having with infinite pains and at considerable cost, constructed a new oven, it turned out that the mortar he had used was full of flints, probably the refuse of his materials; and when the furnace was heated, these flints flew, and attached themselves to his pottery, so that it was commonly spoiled.

"On passing the hand over my vases," said he, "little fragments of flint were perceptible, which cut like a razor. I instantly determined to break them up, rather than sell them in a deteriorated state, for what they would fetch, which might have injured the reputation of my discovery. But no sooner had I done, than I was beset by the maledictions of my starving family and the mockery of my neighbors, who treated me as a madman for not having realised a few crowns by my damaged goods."

Nevertheless the man of genius toiled resolutely on! Satisfied of the strength that was in him, and of the importance of his discovery, he went to work again, and with an injured credit and constitution, an object of hatred to some, and contempt to others. From the exhausting nature of his labours, his arms and legs had become like sticks, so that according to his own brief description, there was nothing to keep up his garters, and his stockings came upon his heels as he walked, till he was the picture of wretchedness and destitution. Between the action of the prodigious heat of his furnace, and the influence of the rain and frost on his ill-constructed works, the place was frequently unroofed, compelling him to borrow the materials for its reparation. But this was not always to be accomplished; and he tells us that he often remained watching his oven through the winter nights exposed to wind and weather, with the owls hooting on one side, and the dogs howling on the other.

"Wet to the skin with the beating in of the heavy rains, and groping about in

the dark, for want of a candle, I have often retired to rest at midnight, or even at daybreak," says he, 'looking like some drunken wretch who had been rolling in a gutter. But the worst I had to suffer was from the accusation of my neighbors, who had assisted me, and who now regarded me as a robber; and the reproaches of my family, who treated me as a selfish lunatic.'

This is but a faint outline of the miseries and fatigues sustained by poor Bernard Palissy, in bringing to perfection the art which has proved so highly beneficial to his own and other countries. The furnaces originally of his invention are in use in Sèvres, and have been closely copied in our own and other porcelain works. The moulds in which the vases are baked to secure them from accident, were devised by Palissy, after his unlucky loss from the flying of the flint; and his receipts for the mixing of color are still patent.

The porcelain of Palissy soon attained a prodigious reputation, and few museums or collections of objects of 'virtu' in our own time, but contain specimens of his works under the name of Raphael ware, or China of the middle ages. The embossed dishes exhibiting reptiles and animals, in great perfection, were the invention of Palissy; and several of his dishes and vases present copies after celebrated pictures, executed in relief. The services to replace the wooden and pewter vessels then in use, were the chief objects to which he devoted his art; and with so much taste and skill that many of the original designs exhibit the genius of a first rate sculptor.

The fame of this discovery extended rapidly through France, and orders were given him by all the nobles of the court of Henry II.; among others, by the Duke of Montmorency, who employed him to decorate his stately chateau of Ecouin. One of the chambers was paved with the tiles of Palissy's porcelain, which still remain perfect, unless where the design has been destroyed by the introduction of those huge ungraceful N's, which during the empire were made to disfigure all the ancient and public edifices of France.—*Foreign Journal.*

It is dangerous to be much praised in private circles, before our reputation is fully established in the world.—*Lacon.*

A Bear Story.

Many years ago, a cub bear was caught by a stout lad, near the borders of Lake Winnipiseogee, in New Hampshire, carried into the town, and after proper drilling, became the playfellow of the boys of the village, and often accompanied them to the school house. After passing a few months in civilized society, he made his escape into the woods, and after a few years was almost forgotten. The school house, in the meantime, had fallen from the school master's to the school mistress's hands; and instead of large boys learning to write and cypher, small boys and girls were taught in the same place, knitting and spelling. One winter's day, after a mild fall of snow, the door had been left open by some urchin going out, when, to the unspeakable horror of the spectacled dame and her four-score hopeful scholars, an enormous bear walked in, in the most familiar manner in the world, and took a seat by the fire.

Huddling over the benches as fast as they could, the children crowded about their school mistress, who had fled to the furthest corner of the room; and there they stood crying and pushing, to escape the horror of being eaten first. The bear sat snuffing and warming himself by the fire, however, showing great signs of satisfaction by putting off the meal until he had warmed himself thoroughly. The screams of the children continued, but the school house was far from any other habitation, and the bear did not seem at all embarrassed by the outcry. After sitting and turning himself about for some time, Bruin got up on his hind legs, and shoved too the door, began to take down, one by one, the hats, bonnets and satchels that hung on several rows of pegs behind it. His memory had not deceived him, for they contained, as of old, the children's dinners, and he had arrived before the holidays. Having satisfied himself with their cheese, bread, pies, doughnuts, and apples, Bruin smelt at the mistress' desk, but finding it locked, gave himself a shake of resignation, opened the door and disappeared. The alarm was given, and the amiable creature was pursued and killed; greatly to the regret of the town people, when it was discovered, by some marks on his body, that it was their old friend and play fellow.

[Selected.]

AGRICULTURAL.

Cultivation of the Water-Cress.

The common cress (*Nasturtium officinale*), well known for its highly salutary and antiscorbutic properties, presents two varieties, the green and the blue, which, like most cultivated plants, have been rendered far superior to what they were in their indigenous state: being less acrid, and not so liable to contract the taste of slime and mud as those found in marshes, ditches, and brooks. The history of the cultivation of this plant on the continent of Europe affords some interesting particulars, which will serve to exemplify the advantages that accrue, with proper attention, apparently from the humblest object.

About the beginning of the present century, an attempt was made to form cress grounds in the neighborhood of Paris, similar to those then common on the banks of the Rhine, by the Count de Lasteyrie; but without success; while the markets of that capital were supplied only by persons who travelled to distances, sometimes of 40 leagues, collecting the cress wherever it could be found. The supply was seldom sufficient to satisfy the limited demand, although it frequently consisted of nothing more than bunches of marshy plants masked by a few sprigs of the genuine vegetable. In the winter of 1809, Monsieur Cardon, then principal director of the hospital chest of the grand army, was quartered with his staff at Erfurt, the capital of Upper Thuringia. Walking one day in the environs of the city, when the earth was covered with snow, he was astonished by the sight of several long trenches, from 10 to 12 feet in width, covered with the most brilliant green. Curious to know the cause of what appeared to be a phenomenon at that season, he walked towards them, and perceived with the greatest surprise that the trenches formed a large plantation of water-cress, presenting the aspect of a verdant carpet on a surface in every direction white with snow. In answer to his inquiries, M. Cardon learned that the plantations had existed for many years, and belonged to the authorities of the city, from whom they were rented by the cultivators at the annual sum of \$12,000. Since that time, however, their value has greatly increased. From a statement published in 1830, we

find that the annual return then amounted to more than \$40,000; and that the cress, highly esteemed for its purity and superior qualities, was sold in all the cities of the Rhine, and in the markets at Berlin, at a distance of 120 miles from the place of its growth. M. Cardon foresaw the benefits that might be expected to rise from the introduction of this branch of horticultural industry into the neighborhood of Paris; and, after a long search, found 12 acres of a thin sandy alluvium at St. Leonard, in the valley of the Nonette, between Senlis and Chantilly, which, containing many beautifully limpid springs at a temperature of 59 deg., appeared to be well adapted for a cress plantation. He engaged two well-informed individuals from Erfurt, who were acquainted with the method of cultivation. The ground was laid out in trenches of 250 feet in length by 12 feet in breadth; which were, however, afterwards reduced to one-half of those dimensions, as it appeared that the water lost its natural temperature, and froze in the winter, by flowing over so large a surface. In a few years, after an expenditure of \$16,000, there were 92,000 square feet under cultivation. It was no longer the cress clandestinely gathered, often in flower, or run to seed, that was exposed for sale in the French metropolis. The cress of St. Leonard arrived, packed with a care to which the Parisians were strangers. Its freshness and purity were such, that the market women, of their own accord, offered double the usual price before any demand had been made; and, in testimony of their high satisfaction, feasted the journeymen cultivator who had come to superintend the sale, and the wagoner, and sent them home decorated with ribbons and flowers.

The French growers are particularly careful in warm weather, and guard the plants from exposure to the least storm, as they then turn yellow. They pack them in baskets, which contain from 25 to 30 dozen of bunches, so arranged as to leave a circular opening or chimney up the centre, which always remains empty. The baskets are then placed on rails fixed across a wagon, so as to permit a free current of air through all the openings; and in the summer, before putting on the tilt, the whole are well watered, to preserve their freshness during the night, and they are delivered at the market ear-

ly in the morning in the most perfect condition. The regularity of the arrivals and constant freshness of the cress sent every day from the grounds of St. Leonard, not only insured the success of the scheme, but brought forward a host of competitors. M. Cardon's German workmen left him to commence rival establishments; and there are now in the environs of Paris 16 plantations, producing annually, 1,350,000 dozen of bunches, valued at \$89,000; and, adding the charges of transport, and expenses of all the individuals employed in this branch of trade, which, a few years ago, had no existence, the sum actually circulated amounts to not less than \$300,000!

The culture of cress requires much attention and watchfulness, especially in winter, in which season, during a single night, a sharp frost may destroy a whole plantation, if too remote from the springs to retain their mild temperature. The ground is generally laid out in parallel trenches, separated by small mounds, on which succulent vegetables may be grown. The bottom should be covered with several inches of sandy vegetable earth, perfectly level and equalized, so that the water may have a regular flow in every part. The months of March, April, or September, are the most favorable for putting in the plants, which are generally set in suckers or tufts, 8 or 10 inches apart. A well-planted trench will be in full bearing after the first year, according to the temperature of the water and the nature of the soil. The activity of the vegetation depends particularly on the state of the atmosphere; but if the plantation has been made with care, and the plants well chosen, it will require no other precautions, with the exception of occasional weeding, than those necessary to guard it from winter frosts, and the irruption of foul and muddy water in thaws and storms. In favorable seasons the cress may be gathered every three weeks; but in cold weather two months are sometimes required to bring the plants to perfection. After these gatherings, it is customary to roll and level the bottom of the trench, or to manure when required. A good plantation will last a long time; but it should be renewed by the same process as at first, whenever it shows signs of decay. Sometimes, in frosty weather, the supply of water is increased until the plants are

completely covered; but as this submersion weakens them, it should not be continued longer than is absolutely necessary. Mr. Loudon describes the process as follows: Some market gardeners, who can command a small stream of water, grow the water-cress in beds sunk about a foot in a retentive soil, with a very gentle slope from one end to the other. Along the bottom of this bed, which may be of a convenient length and breadth, chalk or gravel is deposited, and the plants are inserted about six inches every way. Then, according to the slope and length of the bed, dams are made 6 inches high across it, at intervals; so that when these dams are full, the water may rise not less than three inches on all the plants included in each. The water being turned on, will circulate from dam to dam; and the plants, if not allowed to run to flower, will afford abundance of young tops in all but the winter months. A stream of water no larger than what will fill a pipe of an inch bore, will, if not absorbed by the soil, suffice to irrigate in this way an eighth of an acre. As some of the plants are apt to rot off in winter, the plantation should be laid dry two or three times a year, and all weeds and decayed parts removed, and vacancies filled up. Cress grown in this way, however, is far inferior to that grown in a living stream flowing over gravel or chalk.—*American Agriculturist*

MANURES.—In the opinion of Liebig, "the most important object of agriculture is to furnish the soil with nitrogen, in a form capable of assimilation;" and, I added, that it was equally important, "when alkalies are deficient, or when they have been exhausted, that they should also be supplied." It must, however, be recollected, that where alkalies are deficient in a soil, they may be substituted by alkaline earths. "The principal problem for agriculture is how to replace those substances which have been taken from the soil, and which cannot be furnished by the atmosphere."

The most important of these are "The alkalies and the alkaline earths; phosphates, silica, manganese, oxides of iron, and various acids.—*American Agriculturist*."

It's a good sign to see a woman dressed with taste and neatness.

POETRY.

To Our Departed Mother.

The loved one has gone, she has gone,
To rest with her God, her labor all done.
We've laid her where the bleak winds blow,
We've laid her there, 'mid frost and snow:
But soon warm sunny days will come,
The turf shall brighten then, mother,
For oft we'll come to thy lone home,
And water it with tears, mother.
We'll think of thee then, mother,
We'll think of thee still.

One by one, we'll come to thee,
In 'Harmony' all meet thee,
The grove will wave above, and tell
How happily we greet thee.
And if our little ones should die
We'll place them by thy side, mother,
Where innocents already lie.—
They'll draw us home to thee, mother.
We'll think of thee then, mother,
We'll think of thee still.

Those tender lambs, e'en now they're waiting
For thy kiss, thy cordial greeting.—
But they never more can have
Such sweet remembrances of love.
Our children's children too shall know thee,
Know thee on the gilded page,
Where fond filial love will place thee.
Shed thy light from age to age.
'Twill tell of thee then, mother,
'Twill tell of thee still.

Though we weave the cypress now,
We'll weave in many a flower;
For happy were our fleeting days,
Till this sad, blighting hour.
And if we've ever caused thee pain,
Or torn from thy fond heart a sigh,
We'll weep to think of it again—
Forgiven 'twas, ere thou didst die.
We'll think of thee still, mother,
We'll think of thee still.

When trouble and distress assail us,
And hope deferred makes sick the heart;
Thy firm example shall avail us,
In acting—let the cloud depart.
When gladness brightens on our brow,
And hearts grow warm, that are saddened
now,
And pleasures cup seems running o'er,
In festive mirth, as wont before,
We'll think of thee then, mother,
We'll think of thee still.

When on the bed of pain we're laid,
And all around wears sombre shade,
Thine anxious eye, thy constant care,
Will seem to us to still be there.
When we walk to the house of God,
And tread those aisles, thou oft hast trod,
There learned of thy dear Saviour's love,

And tore thy thoughts from earth,—above,
We'll think of thee, then, mother,
We'll think of thee still.

If length of days should be our lot,
And frosted years should mark our age,
Thy virtues never'll be forgot:
These can alone our grief assuage.
Till our life's last sands are falling,
Till the still voice of God is calling,
We'll ne'er forget thee, no,—Oh,—no,
We'll never, never, mother, no.
We'll think of thee then, mother,
We'll think of thee still. *D.*

[New Haven Courier.]

Solution of Enigma No. 42, Vol. III. p. 320.
—Throne: North, Ton, Hone, Noi, Niet,
Tone, The, Tenoi, Rot, Ar, One, Her, No,
Hen, Hoe, Ore, Ten. M. F. T.
Seven Islands, Va.

French Proverbs, Bon mots, &c.—

11. L'espérance est le bâton des malheureux à travers le rude et douloureux voyage de la vie.

12. Les hommes seraient mieux, si les faveurs du public n'étaient jamais que la récompense des actions grandes, nobles et généreuses.

Translation of French Proverbs, &c., page 320.—

9. An apt figure proves as much as a true argument.

10. A man who cannot recommend himself is not worthy of a recommendation.

INDIGO BLUE.—Pulverize two ounces of indigo, put in eight ounces of sulphuric acid, in a pitcher; put the indigo into the acid a little at a time, and keep it stirring with a stick until all the indigo is in the acid. Let this mixture stand forty-eight hours before you color, then boil water sufficient to cover the goods. Put in the mixture of indigo and acid, then your goods immediately afterwards—let them boil five minutes.—This is designed for woolen or silk.

[Selected.]

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